GRAHAM BROCK, INC.

BROADCAST TECHNICAL CONSULTANTS

October 20, 1998

BY HAND DELIVERY

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, NW
Washington, DC 20554

RE: MM Docket No. 98-93
Amendment of Parts 73 and 74

Dear Ms. Salas:

Enclosed are an original and seven copies of the "Comments" in the above referenced docket. Should any questions arise concerning the enclosed, please communicate with either of the undersigned.

Sincerely,

R. Stuart Graham, Jr.
President
Graham Brock, Inc.

Jefferson G. Brock
Vice-President
Graham Brock, Inc.

RSG/JGB/kd
Enclosures

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ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
1998 Biennial Regulatory Review	)	MM Docket No. 98-93
Streamlining of Radio Technical Rules	)	
in Parts 73 and 74 of the Commission's Rules	)	

COMMENTS

1. These Comments are being submitted by Graham Brock, Inc. ("GBI"), a Broadcast Technical Consulting firm and are in response to the Commission's Notice of Proposed Rule Making ("Notice") in MM Docket #98-93. The Commission is soliciting comments regarding proposed changes to Part 73 and 74 of its rules which affects AM, non-commercial FM, commercial FM and FM translator facilities. The proposed technical changes are, in some cases, interrelated with one other. We will, therefore, address the issues together where it is practical to do so.

2. ***Agreements Involving Applications for Coordinated FM Station Changes.*** In its Notice, the FCC is proposing to allow the simultaneous filing of applications which would currently be considered contingent, whereas, the grant of an application could not take place until another station's application (filed ahead of it) is granted and has commenced operation pursuant to Program Test Authority. A license for the second facility would likewise be withheld until the initial facility was licensed. In the Notice, the Commission proposes to allow the simultaneous filing of applications which are interrelated with one another to enable the stations to be processed and granted together. This is similar in nature to affected Class A facilities which, through a filing of a mutual increase of facilities agreement and companion applications, enable power increases from 3.0 to 6.0 kilowatts. The Notice indicates that four interrelated applications could be filed at the same time. We have, to date, prepared Class A applications for mutual increase of facilities of up to five stations at a time which were filed, processed by and granted by the Commission's staff. We have also evaluated the potentials of simultaneous filings

in excess of five stations. However, because of the number of facilities involved, the coordinated agreements were found to be overly cumbersome. We feel that limiting the potential one-step application process to no more than four stations may limit some cases in which a fifth or perhaps sixth station would benefit from entering into the processing chain simultaneously with the other facilities. Therefore, we ask the Commission to consider limiting the number of stations that can have simultaneously filed applications in a contingent format to be a maximum of six, rather than the proposed four.

3. ***Agreements Involving Applications That Would Cause New or Increased Interference.*** The Notice proposes to allow non-commercial and commercial FM stations to enter into agreements with other licensees and permittees, potentially creating interference to stations. While co-channel and 1st adjacent channel stations, in some cases, could be assisted by this interference agreement, it appears to have a greater potential with respect to the relocation of 2nd and 3rd adjacent stations within the protected contour of higher Class facilities. We feel this change would be highly beneficial to 2nd and 3rd adjacent stations were they to relocate to sites that theoretically interfere with another station's protected contour. With respect to non-commercial stations, the Notice indicates that the Commission is proposing a limitation preventing a site relocation inside the other facilities' 63 dBu contour, a mere 3 dB higher than the normally protected contour for non-commercial facilities. This limitation should be reconsidered, allowing greater penetration of the protected signal to facilitate relocation for 2nd and 3rd adjacent FM stations. As the 2nd and 3rd adjacent stations move closer toward the transmitter site of the impacted facility, the actual area of interference would decrease as a result of the interference ratio (desired to undesired) to the protected station's service contour. This would allow for a greater degree of freedom to relocate. Due to the potential changes in 2nd and 3rd adjacent stations' two interfering contours for non-commercial FM facilities (from the 80 dB for 2nd adjacent stations and 100 dB for 3rd adjacent stations to the 100 dB for both 2nd and 3rd adjacent facilities). We suggest that the Commission allow relocation to anywhere within the protected service contour of another facility, however, in no case, within the 70 dBu service contour of a station. This new area of interference to an existing or changed facility should be an area that is adequately served by other non-commercial services or other commercial services, as the case may be, for the type of FM station involved. In addition, we support the use of the ratio

analysis outlined in the Commission's Grandfathered Shortspace FM Report and Order in order to demonstrate where the actual level of interference is occurring, rather than just the area of overlap of the respective protected and interfering contours. While the proposed changes are more beneficial to the non-commercial venue, commercial stations will gain additional latitude by the proposed changes to the contour protection provisions of §73.215 of the rules. In implementing the 5% proposed interference rule it appears that the Commission is also applying the longstanding principles as set forth in §73.37 as it has applied to AM broadcast facilities that..., an application will be accepted even though overlap of field strength contours as mentioned in this section would occur with another station in an area where such overlap does not already exist, if: (1) The total area of overlap with that station would not be increased beyond the present, although, the actual location of interference may change; and (2) there would be no net increase in the area of overlap with any other station beyond the 5% (as proposed). This being the case we agree with the Commission in adding this option for use by the applicant.

4. ***The Point-To-Point Predication Methodology.*** We have submitted various supplemental analyses of contour locations based on various alternative methods for confirmation of coverage of an FM main studio location or a community of license for an FM facility. While we have reviewed the point-to-point method of calculation and have implemented the model, based on the information contained in the Notice, it appears that the Commission might still allow other alternative methods (than the point-to-point method) to be submitted for consideration to the Commission. We note in the Notice that the Commission would not require the 10% variance between methods to be submitted if point-to-point model is utilized for demonstrating coverage (or interference as the case may be). We question whether the 10% policy would remain in effect for other methods of demonstrating compliance or if the point-to-point method would be used exclusively in any reviewing of supplemental methodology. We do feel that other supplemental methods are quite viable for demonstrating the coverage of a community or studio or can alternatively demonstrate that a particular facility cannot cover a main studio or city amply from the proposed site. Since terrain beyond the 16.0 kilometer distance from any station's respective transmitter site can have a major impact in the overall terrain, the contour prediction method in use supports the need to implement a more accurate model for supplemental means of demonstrating compliance with the various rules and

regulations. If the Commission intends to use the point-to-point model exclusively and not consider alternative filings, this should be made clear and part of any Report and Order in the upcoming decision in this instant docket.

5. ***Reduced Minimum Separation Requirements in §73.215(e) for Second- and Third-Adjacent Channel Stations.*** We have been personally involved in many cases where, because of the frequency relationship in stations, licensees and permittees are, in fact, precluded from using any of the provisions of §73.215 since no amount of shortspace is allowed by comparison to the minimum distance separation requirements of the §73.207 of the rules. The Commission, in this Notice, is proposing a maximum shortspacing distance of no more than 6.0 kilometers with frequency relationships which presently allow less than the 6.0 kilometers or, in some cases, no shortspacing is allowed at all. Prior to the full implementation of §73.215, an 8.0 kilometer minimum shortspace was allowed for those facilities that were not considered in the original implementation of the rules, specifically, Class C3 stations. We have previously determined that a shortspacing of up to 8.0 kilometers (in some cases greater) is possible for 2nd and 3rd adjacent stations still enabling the other stations to comply with the other provisions of the Commission's rules.[1] We, therefore, suggest that the Commission reinstate the 8.0 kilometer minimum shortspacing distance allowed, rather than the proposed 6.0 kilometers, to give some additional latitude in site relocations for 2nd and 3rd adjacent stations in the commercial band. In addition, we support the adoption of the actual predicted and interfering contours for stations in Puerto Rico and the Virgin Islands. Having worked with several facilities in this area, the modified table will enable, in many cases for the first time, stations in these areas to seek processing to pursuant to the contour protection rules without the need to request a waiver of §73.215.

6. ***New Class C Height Above Average Terrain Requirements.*** In 1987, the Commission required all Class C facilities to specify a minimum height above average terrain of 300 meters in order to retain their Class C status in light of the changes and creation of new classes ordered in MM Docket #94-231. The Commission's Notice indicates that, of the 863 Class C FM facilities, 519 are operating with heights well below the maximum 600 meter height

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1) Directional antenna systems with a maximum front to back ratio of 15 dB.

above average terrain limitation for the facilities. As a result, the Notice proposes the creation of Class C0 which would apply to all stations with an antenna height above average terrain between 300 and 450 meters and a power of up to 100.0 kilowatts. Only those stations with height above average terrain of 451 meters or higher and a minimum power of 100.0 kilowatts would be considered Class C's.[2] We support the creation of this new classification of stations since, in some cases, it will enable improvements from 3.0 to 6.0 kilowatts, or even class improvements up to the next higher class because of the required minimum distance separation requirements between them and the Class C facilities which are presently precluded. In many instances, the Class C facilities which are precluding improvements are operating with antenna height above average terrain substantially below the 600 meter maximum. Many stations licensed in the 300 to 350 meter range are clearly not operating in the public interest since were it not for over protection of this less than maximum Class C facility other stations could have improvements, increasing their overall coverage area and population served. The Notice proposes a three year time period for those facilities under the 451 meter Class C minimums to file an application specifying minimum facilities or face downgrading. This three year time period is similar to that implemented in Docket #84-231. Although zoning and FAA limitations have become even more difficult in the intervening eleven years, three years should be ample time for licensees and permittees to determine whether or not their facility will be able to meet minimum Class C or whether a downgrade to Class C0 would be appropriate for the station. The Commission is also proposing implementation of a temporary buffer zone to Class C facilities to protect their relocation potential. Since Class C facilities are already receiving maximum protection based on their class of facilities, we suggest the implementation of an additional 16.0 kilometer buffer zone is excessive in light of the rules available which enable relocation of existing stations. Specifically, §73.215, which was created after the Docket #84-231 changes, provides latitude for Class C relocation to achieve the minimum Class C height above average terrain. If a buffer zone is necessary, a small 8.0 kilometer zone would give the additional latitude necessary, in most cases, for relocations since many Class C facilities with heights above average terrain just above 300 meters are already located in or nearby established antenna farms and a relocation

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2) A reference distance of 83 kilometers would be established for Class C stations with 72 kilometers for Class C0.

several miles beyond the tower farm would likely preclude construction of a taller tower due to FAA and local zoning matters.

7. ***Revisions to the Definition of Minor Changes in AM, Non-Commercial FM and FM Translator Rules.*** We agree that the differences between the definition of minor change for the various broadcast facilities needs to be corrected to better enable existing licensees and permittees to make changes without being subjected to the major change rules and regulations of the various services. We support the change in the definition of minor changes for AM facilities, non-commercial FM facilities and FM translators. This will enable the filing of applications which at present cannot be filed due to the Commission's freeze on new or major changes of AM facilities as well as FM translators.

8. ***Coordinate Corrections by Single Application for Licensed Stations.*** We are in full agreement with the Commission's proposal to allow the correction of coordinates through the filing of a single new license application with the Commission. The Notice indicates a correction of 3 seconds in latitude and 3 seconds in longitude, provided that an FAA clearance and revised antenna structure registration has been submitted. In accord with that same provision, we suggest the consideration of a minor correction in either the ground elevation or antenna supporting structure height be accommodated in the same manner. In many cases, the antenna registration process has shown that while the coordinates of many towers have been off 1 to 2 seconds in either latitude or longitude, a minor adjustment in the overall tower height is appropriate as well. We suggest that a correction in tower height also be allowed to be submitted on the Form 302 application with the correction of coordinates, provided that the other licensed parameters of the facility remain unchanged, specifically, the antenna center of radiation above ground and the overall effective radiated power of the facility. This would enable more stations to take advantage of this more streamlined process rather than filing an application on Form 301 to make a correction in tower height of only a few feet which could have otherwise been addressed in the filing of a Form 302.

9. ***Second-Adjacent Channel Interference Ratios for Predicting Prohibited Overlap in the Reserved Band.*** We support the proposed change in the interfering contours of non-

commercial stations with 2nd adjacent channel ratios. For some time, stations in the commercial band, utilizing §73.215 contour to contour protections, has treated 2nd and 3rd adjacent channels similarly with the 100 dBu contour. Changing the non-commercial facilities to replicate their commercial counterparts will enable 2nd and 3rd adjacent additional latitude in relocations and, in addition, when coupled with the proposed interference situations, will give 2nd adjacent stations a much improved potential for relocations.

10. ***Minimum Coverage of the Community of License by NCE FM Stations.*** We support the Commission's position that at least a portion of a community of license of a non-commercial educational FM station receive 60 dBu service. This will ensure that facilities can provide some requisite level of signal over their community of license.

11. ***Conclusion.*** We support the Commission's ongoing streamlining proposals and welcome the opportunity to comment regarding the proposed technical changes in this and other Dockets that are currently under consideration before the Commission.

These comments were submitted by Graham Brock, Inc., and they are true and accurate to the best of our belief and knowledge.

Respectfully submitted by Graham Brock, Inc.

R. Stuart Graham, Jr., President

Jefferson G. Brock, Vice-President

AFFIDAVIT AND QUALIFICATIONS OF CONSULTANT

State of Georgia)
St. Simons Island) ss:
County of Glynn)

The attached Comments were prepared by **R. STUART GRAHAM**, being duly sworn, deposes and says that he is an officer of Graham Brock, Inc.

His qualifications are a matter of record before the Federal Communications Commission. He is a graduate of Auburn University and has been active in Broadcast Engineering since 1972.

The attached report was either prepared by him or under his direction and all material and exhibits attached hereto are believed to be true and correct.

This the 20th day of October, 1998.

R. Stuart Graham, Jr.
Affiant

Sworn to and subscribed before me
this the 20th day of October, 1998

Notary Public, State of Georgia
My Commission Expires: April 20, 2002

AFFIDAVIT AND QUALIFICATIONS OF CONSULTANT

State of Georgia)
St. Simons Island) ss:
County of Glynn)

The attached Comments were prepared by **JEFFERSON G. BROCK**, being duly sworn, deposes and says that he is an officer of Graham Brock, Inc.

His qualifications are a matter of record before the Federal Communications Commission. He has been active in Broadcast Engineering since 1979.

The attached report was either prepared by him or under his direction and all material and exhibits attached hereto are believed to be true and correct.

This the 20th day of October, 1998.

Jefferson G. Brock
Affiant

Sworn to and subscribed before me
this the 20th day of October, 1998

Notary Public, State of Georgia
My Commission Expires: April 20, 2002